

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

**(19) World Intellectual Property
Organization
International Bureau**



10/536897

(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/056511 A1

(51) International Patent Classification⁷: B22F 3/105 //
B29C 67/00

(74) Agent: ALBIHNS GÖTEBORG AB; Box 142, S-401 22 Göteborg (SE).

(21) International Application Number:
PCT/SE2003/001939

(81) **Designated States (national):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 12 December 2003 (12.12.2003)

(25) Filing Language: Swedish

(26) **Publication Language:** English

(30) Priority Data:
0203768-7 19 December 2002 (19.12.2002) SE

(84) **Designated States (regional):** ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW). Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventor; and

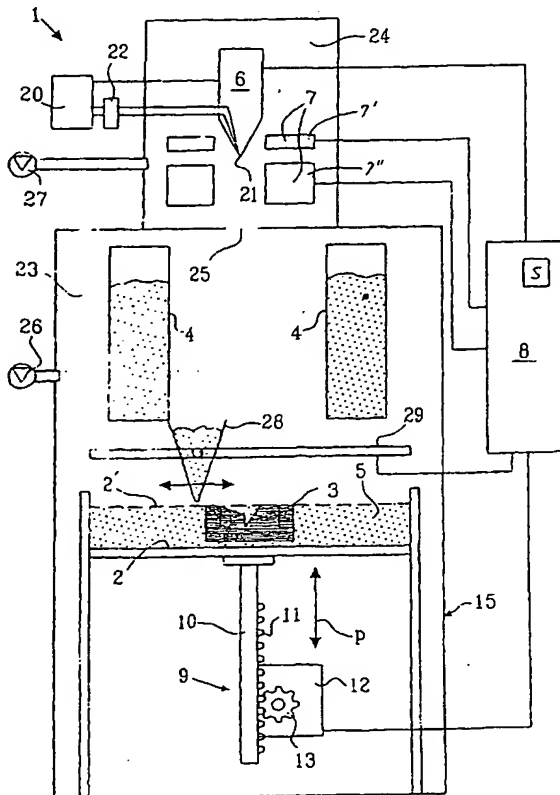
(75) **Inventor/Applicant (for US only):** LARSSON, Morgan
[SE/SE]; Eklandagatan 60 D, S-412 61 Göteborg (SE).

Published:
— *with international search report*

[Continued on next page]

(54) Title: ARRANGEMENT AND METHOD FOR PRODUCING A THREE-DIMENSIONAL PRODUCT

(57) Abstract: Arrangement for producing a three-dimensional product, which arrangement comprises a work table on which said three-dimensional product is to be built up, a powder dispenser which is arranged so as to distribute a thin layer of powder on the work table for forming a powder bed, a radiation gun for delivering energy to the powder, fusing together of the powder then taking place, means for guiding the beam emitted by the radiation gun over said powder bed for forming a cross section of said three-dimensional product by fusing together parts of said powder bed, and a control computer in which information about successive cross sections of the three-dimensional product is stored, which cross sections build up the three-dimensional product, where the control computer is intended to control said means for guiding the radiation gun over the powder bed according to an operating scheme forming a cross section of said three-dimensional body, said three-dimensional product being formed by successive fusing together of successively formed cross sections from by the powder dispenser, and method for producing three-dimensional product using such an arrangement.



WO 2004/056511 A1